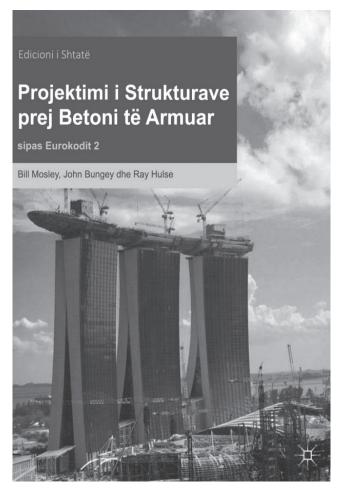
TelQuel Architecture Book Review

Reinforced Concrete Design to Eurocode 2 Seventh Edition

ILDA RUSI

POLIS University



Author: B. Mosley, J. Bungey & R. Hulse Publisher:POLIS Press Pages: 447 Year: 2022 ISBN: 978-9928-371-01-

The adaption in the Albanian language of the book Reinforced Concrete Design to Eurocode 2 seventh edition is a work of more than 4 years undertaken by the Department of Architecture and Civil Engineering at POLIS University, composed by a staff of former and young professors, who have been already used this book in their teaching courses. Being part of the working group my review, which is more of a summary, notes the main topics and sub points considered in each chapter along with a selection of critical or supplementary observations. The well-known book Reinforced Concrete Design by Mosley, Bungey, and Hulse (Palgrave), which is based on British Standards, was updated in this new version with the intention of maintaining its structure and characteristics. It is feasible to contrast the various consequences when structures are created to either code by comparing the two volumes and highlighting the key distinctions between Eurocode 2 and earlier British Standards. The fact that Codes of Practice are constantly subject to revision should be emphasized. Readers should make sure they are utilizing the most recent edition of any applicable standard.

This book's objective is to give a clear introduction to the ideas and procedures of concrete structure design. It is especially aimed towards students and young engineers who need a clear explanation of the fundamental theory and design techniques. The establishment of a number of these Structural Eurocodes, which are technical papers designed for acceptance throughout all the member states, is the result of efforts to harmonize Technical Standards across the European Community (EC). By applying these uniform criteria, construction companies will be able to compete more fairly across the EC and will be able to remove trade barriers. In the UK, BS8110 was replaced by Eurocode 2 (EC2), which deals with the design of concrete structures. The four elements of Eurocode 2 adopt the limit state principles laid out in British Standards. Part 1, which covers general building regulations, is the section this book mostly relates to. Other European Standards such as Eurocode

0 (Basis of Design), which deals with analysis, and Eurocode 1 (Actions), which addresses loadings on structures, must be utilized in addition to Eurocode 2. Eurocode 7 (Geotechnical Design) and Eurocode 8 are other pertinent Standards (Seismic Design). A variety of supplementary materials with comments and historical context have also been prepared by a number of UK organizations. The National Annex, which contains material particular to each individual member state and is backed in the UK by the British Standards publication PD 6687:2006, which gives background information, is another piece of supporting paperwork. The Concise Eurocode for the Design of Concrete Buildings, which was created by the Concrete Centre, also contains information that has been condensed from EC2 but is presented differently than the main Eurocode and only includes the data that is crucial for the design of more commonplace concrete structures.

The fundamental aspect of EC2, however, is that the design concepts it embodies are nearly identical to those found in BS8110. Therefore, even though there are some minor differences, engineers who are accustomed to designing to the prior British Standard should have no trouble understanding the key components of EC2. Both of these qualities are included in this edition, which also makes use of new grades of reinforcing steel and design principles based on concrete cylinder strength.

The terminology used in this work has been kept as consistent as practicable with standard UK practice; for instance, loads have frequently—though not always—been used in place of actions. At pertinent times in the text, other "new" terminology is noted. The usage of actions to represent structural loading and the words permanent and variable actions to express imposed and dead loads are the two most notable examples.

Chapters 1 through 5 of this book's subject matter are mostly concerned with theory and analysis, while the other chapters cover the design and details of various sorts of members and structures. There are sections on seismic design and earth-retaining structures, as well as chapters on prestressed concrete and composite construction, in order to cover topics that are typically covered in an undergraduate course.

Along with other new sections, such as the design of deep beams, a new chapter on water-retaining structures has been introduced. In order to reflect UK usage of EC2 since its debut, additions and alterations have also been made. For better comprehension, more examples and graphics have been included, and Chapter 1 has received a new section that introduces design methods. This takes into account conceptual design, sustainability, health and safety, as well as the use of design software.

To sum up, generations of students have relied on and used this best-selling textbook, which offers a clear and useful introduction to the principles and procedures used in the design of reinforced and prestressed concrete structures. The book includes a ton of practical examples to help readers understand the different facets of design that are discussed in the text. Design tools including charts, tables, and formulas are included, and an appendix with a summary of crucial design data is included for convenience.